

Notice of Allowability

Application No.

09/747,289

Examiner

Thien D. Tran

Applicant(s)

KIM ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/28/2004.
2. ☒ The allowed claim(s) is/are 2-24, 26-35 renumbered as 1-33 respectively.
3. ☒ The drawings filed on 21 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 02/18/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 14, the prior arts fail to teach or fairly suggest a method for adaptive data transmission in a plurality of sending communication means, in a communication system which has the sending communication means and receiving communication means using a shared channel and a dedicated channel, said method comprising the steps of:

calculating the average movement and the standard movement deviation of a transmission data traffic per unit time t about variable transmission rate service session to be transmitted, in response to a data transmission request of a user, in combination with other limitations as specified in the independent claims 1 and 14.

Regarding claim 18, the prior arts fail to teach or fairly suggest a method for adaptive data transmission in receiving communication means in a communication system which has a plurality of sending communication means and receiving communication means using a shared channel and a dedicated channel. The method comprising the steps of:

forecasting a traffic of data received from the sending communication means using the dedicated channel;

obtaining a control transmission rate guaranteeing a value between the minimum and maximum transmission rates via the forecasted data traffic;

obtaining an idle allowable transmission rate which is not being used from the maximum capacity allowed to the plurality of sending side by using the obtained control transmission rate, in combination with other limitation as specified in the independent claim 18.

Regarding claim 26, the prior arts fail to teach or fairly suggest an apparatus for adaptive data receiving in a communication system having a plurality of sending communication means and receiving communication means which use a shared channel and a dedicated channel, said apparatus comprising:

a data traffic forecasting module for calculating and forecasting an amount of data traffic in the next unit time based upon a value calculated in the received traffic calculation module about each of the variable transmission rate service session, and obtaining a control transmission rate which guaranteeing a value between the minimum and maximum transmission rates via the calculated forecasting data traffic, in combination with other limitations as specified in the independent claim 26.

Regarding claim 31, the prior arts fail to teach or fairly suggest an apparatus for adaptive data transmission in a communication system having sending communication means and receiving communication means which use a shared channel and a dedicated channel, said apparatus comprising:

a transmission module for modulating data received from a transmission scheduler module, diffusing the data into a value corresponding to the pertinent shared channel subjected to transmission and transmitting the diffused data to the receiving communication system,

whereby an idle transmission capacity which is not being used from the maximum allocation capacity already allocated to the sending communication means using the dedicated channel can be used to transmit the data by using the shared channel information transmitted from the receiving communication means, in combination with other limitations as specified in the independent claim 31.

Regarding claim 32, the prior arts fail to teach or fairly suggest an apparatus for adaptive data transmission in a communication system having a plurality of sending communication means and receiving communication means which use a shared channel and a dedicated channel, the apparatus comprising:

a transmission controller module for calculating the amount of a transmittable data traffic during the next unit time and forecasting the data traffic thereof based upon the amount of data transmitted during unit time, calculating a control transmission rate which guarantee a value between the minimum and maximum rates via the calculated forecasting data traffic, and then controlling data transmission from a transmission scheduler module according to the control transmission rate, in combination with other limitations as specified in the independent claim 32.

Conclusion

2. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (571) 272-3156. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

Patent Examiner

Thien Tran

DUCHO
PRIMARY EXAMINER



5-25-05